



GREATER NASHVILLE
REGIONAL COUNCIL

Transportation Planning Work Program

Fiscal Years 2020-2021

Greater Nashville Regional Council

220 Athens Way, Suite 200 | Nashville, Tennessee 37228 | Phone: (615) 862-8828 | Fax: (615) 862-8840

GNRC.org

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RESOLUTION TPB-2020-04

A RESOLUTION AMENDING THE FEDERAL FISCAL YEARS 2020 AND 2021 UNIFIED PLANNING WORK PROGRAM FOR THE NASHVILLE METROPOLITAN PLANNING AREA

WHEREAS, the Nashville Area Metropolitan Planning Organization (MPO) is responsible for carrying out a comprehensive, cooperative, and continuing transportation planning process across Davidson, Maury, Robertson, Rutherford, Sumner, Williamson, and Wilson counties, and

WHEREAS, on August 21, 2019, the MPO adopted the UPWP for federal fiscal years 2020 and 2021 to carry out planning activities to be undertaken in the Nashville area using federal transportation grant funds; and

WHEREAS, federal regulations require that the MPO develop and adopt a Unified Planning Work Program (UPWP), also referred to as the Transportation Planning Work Program, to include description of metropolitan area planning activities to be undertaken in the Nashville area using federal transportation grant funds; and

WHEREAS, various state, local, and regional agencies concerned with transportation planning for this area have cooperatively developed a two-year UPWP to direct the planning efforts for the federal fiscal years beginning October 1, 2019 and ending September 30, 2021; and

WHEREAS, the adoption of the UPWP satisfies federal planning requirements, it also establishes annual membership dues in order to provide local matching funds for the federal grants used to fund regional and subregional studies being carried out by the Greater Nashville Regional Council on behalf of its MPO member jurisdictions; and

WHEREAS, the MPO's Public Participation Plan allows the public and interested stakeholders a period of no less than 10 days to review proposed amendments to the UPWP; and

WHEREAS, the following amendments have met all public noticing requirements, are consistent with the 2040 Regional Transportation Plan, and conform to the requirements of Title 23 Code of Federal Regulations Part 450.324;

NOW, THEREFORE, BE IT RESOLVED by the Transportation Policy Board of the Nashville Area Metropolitan Planning Organization, that the Unified Planning Work Program is amended as follows:

- **Additional Planning Activities:** Regional Traffic Shed/Impact Fee Analysis
- **Related Planning Activities:** Statewide Active Transportation Plan (TDOT), WeGo Star Rail Improvements Planning Study (WeGo/RTA), Regional Park and Ride Investment Strategy (WeGo/RTA), Transit Shelter Planning and Implementation Study (Murfreesboro/Rover), Cool Springs Transportation Study (Franklin)

Adopted this 19th day of August, 2020 by the Transportation Policy Board of the Nashville Area Metropolitan Planning Organization.



The Honorable Mary Esther Reed,
Transportation Policy Board Chair

Attest:



Sean Pflzer,
MPO Coordinator

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1.0 Introduction

1.1 About the Greater Nashville Regional Council

The Greater Nashville Regional Council (GNRC or the Council), is a public body corporate and politic initially created by the Tennessee Development District Act of 1965 and further empowered by Title 64, Chapter 7, Part 1, Tennessee Code Annotated (TCA), as amended (the Act). GNRC is owned by and operated on behalf of its local government membership comprised of county governments in the counties of Cheatham, Davidson, Dickson, Houston, Humphreys, Montgomery, Robertson, Rutherford, Stewart, Sumner, Trousdale, Williamson, and Wilson, Tennessee, and all incorporated municipalities and metropolitan governments located within these counties.

GNRC's mission is to assist local communities and state agencies in the development of plans and programs that guide growth and development in the most desirable, efficient, and cost-effective manner, while ensuring the continued long-term livability of the region. GNRC is governed by a regional council comprised of city mayors, county mayors/ executives, state legislators, appointments representing business/industry, and appointments representing minority populations and employs approximately 80 full-time staff.

1.2 About the Nashville Area Metropolitan Planning Organization

GNRC is recognized by the State of Tennessee Department of Transportation (TDOT) and the United States Department of Transportation Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) as the federally-designated Metropolitan Planning Organization (MPO) for the seven county Nashville metropolitan planning area which includes Davidson, Maury, Robertson, Rutherford, Sumner, Williamson, and Wilson counties. In this role, GNRC fulfills the federal requirements for metropolitan planning provided in Titles 23 and 49 of the U.S. Code of Federal Regulations (CFR) on behalf of the State of Tennessee and local government members which serve on its Transportation Policy Board.

1.3 About this Document

This document was prepared in accordance with 23 CFR 450.308 which requires each MPO prepare an annual Unified Planning Work Program (UPWP), also called a Transportation Planning Work Program, to identify all federally-funded regional transportation planning activities or studies that will be carried out by GNRC staff, vendors/consultants, or partner organizations. The document also provides an overview of federal transportation planning requirements, the organizational structure of the MPO as it is administered by the GNRC, and a review of regional issues and initiatives that shape the transportation planning activities identified in the work program.

2.0 Transportation Planning Overview

2.1 Federal Transportation Planning Requirements

While the earliest beginnings of urban transportation planning go back to the post-World War II years, the federal requirement for urban transportation planning emerged during the early 1960s. The Federal-Aid Highway Act of 1962 created the federal requirement for urban transportation planning largely in response to the construction of the Interstate Highway System and the planning of routes through and around urban areas.

The Act required, as a condition attached to federal transportation financial assistance, that transportation projects in urbanized areas of 50,000 or more in population be based on a continuing, comprehensive, urban transportation planning process undertaken cooperatively by the states and local governments — the birth of the so-called 3C, “continuing, comprehensive and cooperative” planning process.

The Intermodal Surface Transportation Equity Act (ISTEA) of 1991, and subsequent acts, strengthened the metropolitan planning process, enhanced the role of local elected officials, required stakeholder involvement, and encouraged movement away from modal parochialism toward integrated, modally mixed strategies for greater system efficiency, mobility and access.

Federal legislation, such as the current law created through the *Fixing America’s Surface Transportation Act* of 2015 (FAST Act), is codified in the U.S. Code of Federal Regulations (CFR) and published in the Federal Register by executive departments and agencies of the federal government. Title 23 of the United States Code (U.S.C.) contains rules and regulations for the regional transportation planning carried out by GNRC on behalf of the Nashville Area MPO (23 CFR Part 450, subpart C) with additional provisions provided in Title 49.

2.2 Regional Planning Organizations

Federal law requires states to consult and coordinate with local officials in the development of transportation plans and programs. In Tennessee, TDOT works with two types of federally-recognized regional planning organizations which serve as forums for cooperative planning and decision-making.

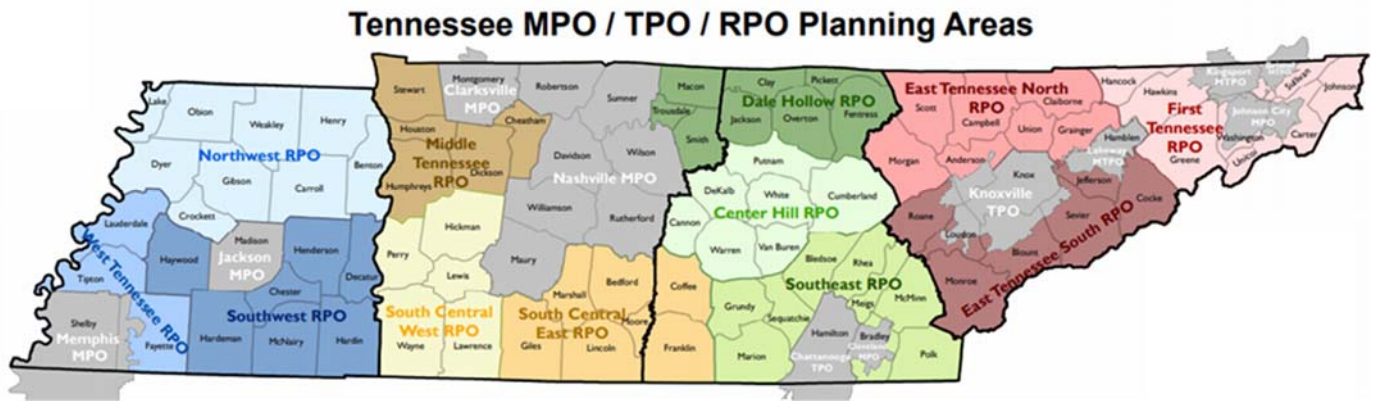
Metropolitan Planning Organizations (MPOs), also sometimes referred to as Transportation Planning Organizations, serve as the lead planning agency in cooperation with the State and public transportation operators for urban areas of the state with 50,000 or more people and are empowered to make decisions about how federal transportation funds will be programmed on transportation improvements within their respective “metropolitan planning areas.” In support of that decision-making process, MPOs are required to produce a long-range Regional Transportation Plan, a short-range Transportation Improvement Program, and a Unified Planning Work Program, each of these described further in section 2.4.

There are eleven MPOs across the state which work in partnership with TDOT to carry out the following activities in their respective planning areas:

- Monitor the conditions of the existing transportation network;
- Identify existing capacity or safety problems through detailed planning studies to develop candidate transportation improvements;
- Forecast future population and employment growth for the region;
- Evaluate the effects that future land use plans will have on transportation infrastructure within major growth corridors throughout the region;
- Develop alternative growth scenarios to evaluate the affects that land use and transportation choices made today will have on the region’s future;
- Estimate the impact that an expanding transportation system will have on air quality;
- Develop a financial plan that identifies the costs and revenues associated with the continued operation and maintenance, and future expansion of the region’s transportation system;

- Work with the public and stakeholders to determine the region’s priorities for improving the transportation system with the anticipated revenue; and
- Track progress through performance-based planning.

Rural Planning Organizations (RPOs) serve a similar function as MPOs for the rural areas of the state. The purpose of an RPO is to involve local officials in multimodal transportation planning, through a structured process, to ensure quality, competence, and fairness in the transportation decision-making process. RPOs consider multimodal transportation needs on a local and regional basis, review long-term needs as well as short-term funding priorities, and make recommendations to TDOT. RPOs are advisory in nature and lack the programming authority of MPOs.



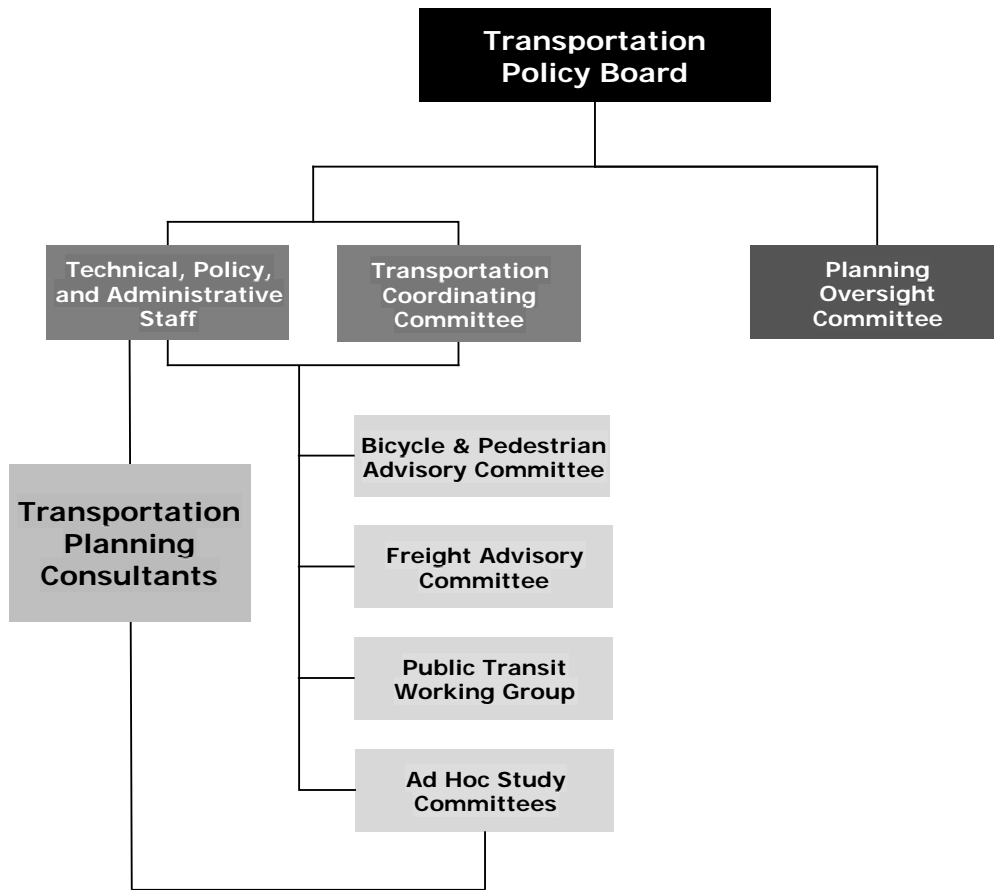
The GNRC region is served by the two regional planning organizations in addition to the Nashville Area MPO. GNRC participates on the technical committee and policy board for each of these organizations in order to represent a land use and economic development perspective and to ensure coordination of transportation-related initiatives across Middle Tennessee.

- **Clarksville Urbanized Area MPO** - The Clarksville-Urbanized Area MPO is the federally-designated regional planning organization for Montgomery County, Tennessee and the portion of Christian County, Kentucky including and adjacent to the U.S. Census Clarksville Urbanized Area. Staffing and administrative support is provided by the Clarksville/Montgomery County Regional Planning Commission.
- **Middle Tennessee RPO** - The Middle Tennessee Rural Planning Organization coordinates regional transportation planning for Stewart, Houston, Humphreys, Dickson, and Cheatham counties. Staffing and administrative support is provided by the Mid-Cumberland Human Resource Agency.

2.3 Administration & Organization of the Nashville Area MPO

The Nashville Area MPO is the federally-designated transportation planning and programming agency for Davidson, Maury, Robertson, Rutherford, Sumner, Williamson, and Wilson counties (see map in Appendix A). The MPO program is funded in large part by grants made available through TDOT from the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) of the U.S. Department of Transportation (U.S. DOT). Local governments across the area contribute funding through regional annual dues which assess every county and each community of 5,000 or more in population a per capita rate of 26 cents.

The MPO program is organized around a Transportation Policy Board, advisory committees, and professional planning staff as depicted in the figure below and described in the following sections.



Transportation Policy Board

The Transportation Policy Board governs the policy-making and programming decisions for the MPO program, and serves as the primary forum for collaboration among local communities, state officials, and interested parties related to regional transportation policies, plans, programs, and funding. The Policy Board consists of the principal elected official (e.g., mayor or county executive) from each of the counties within the approved metropolitan planning area, as well as cities in those counties with a population of 5,000 or more people. Additional board members include the Tennessee Governor, a representative from the Greater Nashville Regional Council, a representative of area public transit operators, a representative of area county highway departments, and staff from the Federal Highway Administration and Federal Transit Administration. A complete roster and contact information is available online at <https://www.gnrc.org/324/Transportation-Policy-Board>.

Planning Oversight Committee

The Planning Oversight Committee (POC) monitors the progress of activities identified in the Unified Planning Work Program, and reviews requests for reimbursement of expenses incurred by consultants contracted by the GNRC on behalf of the MPO. The committee also serves to develop any terms of agreement with GNRC for the administration of the MPO planning grants and the provision of staffing support. The committee’s recommendations must be adopted by the Transportation Policy Board in order to be enacted. The committee consists of the chairperson and vice-chairperson of the Transportation Policy Board, the chairperson of the Transportation Coordinating Committee, Policy Board members that represent the largest city within each

Census-defined Urbanized Area located within the metropolitan planning area, and a member of the Policy Board representing a municipality located outside of an Urbanized Area, a member of the Policy Board representing a county government, and a representative of TDOT.

Transportation Coordinating Committee

The Transportation Coordinating Committee (TCC) is the lead advisory committee to the Policy Board. The TCC is responsible for assisting transportation planning staff with preparing and reviewing data, analyzing trends, and developing recommendations for the Transportation Policy Board. In addition, the TCC takes a lead role in coordinating local implementation of MPO-endorsed projects and policies. The committee consists of the administrative and technical leadership of member jurisdictions and agencies including local planning and public works departments, public transit agencies, public health departments, the Tennessee Department of Transportation, the Tennessee Department of Environment and Conservation, the Federal Highway Administration, and the Federal Transit Administration. A complete roster and contact information is available online at <https://www.gnrc.org/234/Transportation-Coordinating-Committee>.

Administration and Staffing Support

The MPO program is staffed by the GNRC which provides professional planners, engineers, research analysts, policy advisors, and communications specialists in support of the Transportation Policy Board. An MPO Coordinator oversees the day to day management of activities identified in the adopted UPWP. The GNRC also is responsible for the execution of legal agreements and contracts on behalf of the Transportation Policy Board, and provides administration and management of its fiscal needs. More information about GNRC is available at <http://www.gnrc.org>.

2.4 Transportation Planning Products and Documents

As part of its responsibility to staff the MPO program, GNRC staff produces three major work products: a Regional Transportation Plan (also known as the RTP or long-range transportation plan), a Transportation Improvement Program (TIP), and a Unified Planning Work Program (UPWP). The MPO's Transportation Planning Prospectus provides further detail on the program's organizational structure and planning process, and a Public Participation Plan (PPP) helps communicate to partners and the general public opportunities for involvement in the development of MPO products. The PPP also specifies the process and timelines for adopting and amending MPO plans and programs. All plans and programs are available on the MPO's website at GNRC.org and NashvilleMPO.org and at the GNRC's Downtown Office, 138 2nd Ave N, Nashville, TN 37201.

Regional Transportation Plan

The Regional Transportation Plan (RTP) is a long-range, twenty-five year multimodal strategy and capital improvement program developed to guide the effective investment of public funds in transportation facilities. The plan identifies specific roadway and transit projects that will help manage congestion, increase regional mobility options, and address other community-driven quality of life outcomes. The RTP is updated every four or five years and may be amended as a result of changes in federal planning requirements, anticipated federal, state, and local funding; major investment studies; congestion management systems plans; interstate interchange justification studies; and environmental impact studies. The Regional Transportation Plan is available at <https://www.gnrc.org/194/Regional-Transportation-Plan>.

Transportation Improvement Program

The Transportation Improvement Program (TIP) is a short-range work program that lists all regionally-significant and federally funded transportation projects and services in the MPO planning area. This includes highway and street projects, public transit projects, as well as bicycle and pedestrian projects that are implemented by TDOT or local governments, or transit agencies. The TIP is required to cover at least a four-year span and is updated at least every three years. All projects included in the TIP must be consistent with, or selected from the adopted

regional transportation plan. Additionally, the TIP must be fiscally constrained by federal appropriations or estimated revenues.

The TIP identifies the location and scope of work for transportation improvements and authorizes federal grant amounts and phases of work (e.g., engineering, construction, etc.) by program year. Federal transportation funds may not be used by TDOT or local agencies in the region until they are programmed in the TIP. The current TIP accounts for approximately \$1.5 billion dollars through the year 2020.

More information about the TIP is available online at <https://www.gnrc.org/195/Programmed-Investments>. An interactive map of projects in the TIP is available at <http://TIP.NashvilleMPO.org>.

Transportation Planning Prospectus and Organizational Bylaws

The Transportation Planning Prospectus provides an overview of federal metropolitan planning requirements, the MPO's organizational structure and decision-making process, and other regional partners who share a role in carrying out those requirements. The organizational bylaws specify the governance structure and responsibilities of the MPO Transportation Policy Board and the sponsor agency (currently GNRC).

Public Participation Plan

The Public Participation Plan (PPP) provides the general public and interested parties with an overview of the public involvement process for the transportation planning program. This includes information about the strategies deployed to engage the public and stakeholders, and the specific timelines and requirements for public comment during the development and adoption of transportation plans and programs.

Because of the extreme importance of an all-inclusive outreach program that ensures compliance with Title VI, Environmental Justice, LEP, and the Americans with Disabilities Act of 1990, GNRC will place emphasis on efforts to reach out to traditionally underserved or underrepresented segments of the region's population including: low income, minorities, including majority minorities, homeless or institutionally housed, limited English proficiency, limited literacy, transit dependent, transportation disadvantaged, single-parent families, the elderly, and school-aged children. The goal is to ensure public involvement of vulnerable communities in decision making to prevent disproportionately high and adverse impacts, and to ensure equal benefits from transportation improvements. The current PPP is available at <https://www.gnrc.org/DocumentCenter/View/651/Public-Participation-Plan>.

Nashville Region's Vital Signs

Each year, the Nashville Area Chamber of Commerce and GNRC publish a major report to the region that tracks data points related to key issues affecting Middle Tennessee's economic well-being and quality of life in order to facilitate conversation about community-driven solutions to reinforce our strengths and address our weaknesses.

Annual Listing of Federally-Obligated Projects

Each December, the GNRC publishes a complete list of all transportation projects that have had federal funds obligated during the preceding federal fiscal year for the Nashville metropolitan planning area. The obligation of funds is the federal government's promise to pay for all eligible expenses incurred by TDOT or the local implementing agency. Grant funds must be approved by the Transportation Policy Board and included in the RTP and TIP prior to their obligation by the federal government.

Other Reports, Publications, Digital Media

The GNRC publishes several reports, presentations, videos, and other multi-media content to its websites at <http://www.gnrc.org> and <http://www.nashvillempo.org>.

3.0 Planning Topics and Issues

3.1 Community and Regional Issues

The planning priorities for the next two years are shaped largely by input from the Transportation Policy Board and transportation planning partners during the regular planning cycles for the regional Transportation Improvement Program and Regional Transportation Plan. The work program addresses several of the regional planning issues described below by allocating funding to projects that focus on the expansion of public transit options, the development of walkable communities, and the integration of transportation, land use, urban design, and economic development decision-making.

Rapid Population Growth

Growth in the seven-county area has averaged approximately 30,000 people per year since 2010 and is poised to continue over the next two decades. By 2040, the region will welcome nearly one million additional people. While every MPO county is among the fastest growing in the state, Rutherford and Williamson counties are each on pace to leapfrog Chattanooga-Hamilton in size to become nearly as large as present-day Nashville-Davidson County.

Growing Diversity

As Nashville-Davidson County tracks toward becoming a majority-minority community by 2040, it is expected that a combined 40 percent of the population in the MPO's planning area will be a racial or ethnic minority. While cultural diversity of a region is a hallmark of economic competitiveness and promotes talent attraction and retention, this shift in demographics must be considered when planning for the region's future.

Increasing Density

National trends show both Millennials and Baby Boomers have a growing preference for smaller living quarters in walkable communities with access to transit. This aspiration has caused many, especially younger people, to leave traditional suburban neighborhoods for environments that offer proximity to amenities such as shopping, entertainment, and transportation options. These attitudes toward mobility and housing options have led planners to develop strategies for neighborhood infill and explore retrofitting suburban areas to become more walkable and transit-friendly.

Worsening Congestion

Over the last year, there has been a two percent increase in the time spent in cars commuting in Middle Tennessee. While the increase may seem small, it significantly impacts accessibility and travel times. Additionally, freight traffic is expected to compound the problem as the tonnage of freight on our roadways expected to grow by 96 percent by 2040. Without improvement to the operational performance of our roadways and coordinated efforts to improve access to rail and other modal options, truck-related congestion will increase significantly.

Housing Affordability and Access to Employment

The cost of housing in urban centers has risen in recent years, pushing many lower income families to seek housing farther from places of employment. As a whole, this segment of the population is often transit dependent and is disproportionately affected by this trend. For Middle Tennesseans struggling with poor transportation access, decreasing the proximity to their source of income can limit the ability to keep a job. This affects both those attempting to climb out of poverty and businesses needing access to workforce.

Dangerous by Design

According to the National Highway Traffic Safety Administration and Transportation for America, the Nashville region is the 14th most dangerous metropolitan area for pedestrians in the nation, with 1.4 pedestrians killed each year per 100,000 people. To address this issue, improved design and investment in roadway safety features and active transportation facilities is necessary.

Emerging Technologies

It is hard to address the challenges facing the region without considering how technology will impact our transportation system. As advancements in technology continue to redefine the way people travel, these changes will have an enormous impact on the development of transportation systems. Recent innovations have improved fuel efficiency, led to the creation of connected vehicles, spurred widespread use of real time traffic data, and deployment of intelligent traffic signals.

Heavy Cross-County Commuting Patterns

According to recent American Community Survey data, one out of every three Middle Tennessee commuters works outside of their home county. The number grows to nearly 1 in 2 when looking at residents outside of Nashville-Davidson County. These strong cross-county commuting patterns are a defining characteristic of our area and clearly demonstrate why regional coordination on issues like transportation, housing, and economic development is crucial to the long-term success of individual communities.

Few Options for Seniors

A recent report regarding public transit for seniors shows Nashville as the fourth-worst city for senior transit access in the nation among metropolitan areas with a population of one million or more. Commissioned by Transportation for America, "Aging in Place, Stuck without Options" showed that 85 percent of Nashville's citizens aged 65 to 79 had poor transit access in 2015. Only Atlanta, Kansas City and Oklahoma City are worse off.

Physical Inactivity and Declining Health

According to the Centers for Disease Control and Prevention, Tennessee is among the top 10 most obese states in the nation, with approximately two thirds of adults and one-third of adolescents considered overweight or obese. Additionally, one-third of Americans do not drive and/or own cars, relying on walking, bicycling, and transit for transportation. Yet of the 30 percent of trips in urban areas that are one mile or less, 65 percent depend on an automobile due to inadequate facilities.

Connectivity and Mobility Redefined

According to the Quarterly (quarter 1, 2019) E-Commerce Report published by the U.S. Census Bureau, more than 10 percent of all retail sales are now made through the internet, and that share is increasing by more than 15 percent per year. E-commerce, coupled with increased teleworking options, is changing the notion of mobility. Smartphones, and the emergence of the sharing economy, are only early precursors to a more significant evolution in transportation technology that will pave the way towards the autonomous and connected vehicles of the future.

3.2 Regional Planning Goals & Objectives

GNRC uses the Unified (Transportation) Planning Work Program to advance the regional goals and objectives identified through public and stakeholder involvement in the development of the regional transportation plan. The 2040 Regional Transportation Plan, adopted in 2016, established the following goals and objectives that embody the desired outcomes defined through community engagement. The planning activities outlined in the work program provides data, research, and analysis that is used to develop and evaluate policies, projects, or programs for their consistency with these goals and objectives.

<p>Goal 1. Maintain a Safe and Reliable Transportation System for People and Goods</p>	<ul style="list-style-type: none"> • Integrate a “fix-it-first” mentality to keep existing infrastructure in a State of good repair. • Reduce the number and severity of crashes by designing roadways to accommodate all users. • Incorporate information technologies to improve traffic operations and help optimize traveler decisions. • Manage the negative impact of traffic congestion by providing alternatives to driving. • Designate and implement a regional freight network to efficiently move goods and minimize negative impacts to local communities.
<p>Goal 2. Help Local Communities Grow in a Healthy and Sustainable Way</p>	<ul style="list-style-type: none"> • Align transportation decisions with economic development initiatives, land use planning, and open space conservation efforts. • Integrate healthy community design strategies and promote active transportation to improve the public health outcomes of the built environment. • Encourage the deployment of context-sensitive solutions to ensure that community values are not sacrificed for a mobility improvement. • Incorporate the arts and creative placemaking into planning and public works projects to foster innovative solutions and to enhance the sense of place and belonging. • Pursue solutions that promote social equity and contain costs for transportation and housing. • Minimize the vulnerability of transportation assets to extreme weather events.
<p>Goal 3. Enhance Economic Competitiveness to Attract Private Investment</p>	<ul style="list-style-type: none"> • Recognize major shifts in demographics and market preferences for transportation and housing and respond with solutions that keep Middle Tennessee an attractive place to live and do business. • Improve the connectivity between workforce and jobs by offering a range of options to manage commuting distances and travel times. • Improve mobility within and between centers of commerce across the region by providing a diversified transportation system, rather than relying solely on roadway capacity. • Keep the region connected to national and global markets by improving travel times on US Interstates, upgrading intermodal connections to water, air, and rail freight systems, and by ensuring Middle Tennessee is included in plans for national high-speed passenger rail.
<p>Goal 4. Spend Public Funds Wisely by Ensuring a Return on Investment</p>	<ul style="list-style-type: none"> • Increase public ownership in the planning process to help identify the most significant problems. • Foster regional interdisciplinary collaboration to prioritize the most effective solutions. • Evaluate the full costs and benefits of public investment in infrastructure.

- Strive for quality over quantity by implementing all elements of priority projects to maximize value.
- Consider public-private partnerships to encourage innovative approaches to project design and delivery.
- Accelerate project delivery schedules by involving the public early and often, minimizing bureaucratic delay, and ensuring that funding is available to implement projects once designed.
- Monitor and track the performance of public investments to demonstrate accountability.
- Find ways to bridge the gap between revenue shortfalls and the growing cost of transportation needs.

3.3 Federal Planning Factors and Initiatives

Activities presented in the Transportation Planning Work Program also are shaped by a set of national goals defined by the federal transportation program. Through the 2015 FAST Act, Congress defined ten specific planning factors to consider when developing transportation plans and programs in a metropolitan area including:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
2. Increase the safety of the transportation system for motorized and non-motorized users.
3. Increase the security of the transportation system for motorized and non-motorized users.
4. Increase the accessibility and mobility options available to people and for freight.
5. Protect and enhance the environment, promote energy conservation, improve quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
7. Promote efficient system management and operation.
8. Emphasize the preservation of the existing transportation system.
9. Improve the resiliency and reliability of the transportation system and reduce or mitigate storm water impacts of surface transportation.
10. Enhance travel and tourism.

In addition to the planning factors required by the FAST Act, the GNRC considers areas of emphasis promoted as best practices at the national level either by the U.S. DOT or planning associations that are relevant to the metropolitan planning process. A description of how the GNRC is incorporating those recent and current priorities follows.

Models of Regional Planning Cooperation

The FHWA and FTA encourage ongoing collaboration among TDOT and MPOs and between MPOs in order to ensure the proper coordination of transportation plans and programs. The Nashville Area MPO is an active participant in TDOT's statewide long-range transportation plan update and as a member of the MPO; TDOT is actively engaged in the regional transportation plan developed for the Nashville metropolitan area. In addition, the Nashville Area MPO works closely with the Clarksville Urbanized Area MPO to carryout transit studies on behalf of or in partnership with the Regional Transportation Authority of Middle Tennessee.

On October 1, 2017, the GNRC became the sponsor agency for the MPO program to enhance coordination among local communities and between regional organizations in Middle Tennessee, improving the efficiency

and effectiveness of regional decision-making and to better align transportation planning programs with other regional activities related to economic development, infrastructure investment, and quality of life.

Access to Essential Services

GNRC is committed to ensuring that the region's transportation system can be relied upon to connect vulnerable populations to life sustaining services including housing, employment, health care, schools, and recreation. The recommendations of the 2040 Regional Transportation Plan incorporated findings into the development of an "equity atlas" which was initially outlined and drafted in 2015. This report identifies the location of traditionally underserved populations along with those essential services. The MPO will continue to develop the equity atlas throughout FY 2020 and 2021 as it drafts the 2045 Regional Transportation Plan.

Performance Based Planning

Since the passage of MAP-21 in 2012 and the FAST Act in 2015, GNRC has been working to expand its approach to performance-based planning. Specifically, the organization is preparing to develop new performance measures for safety, state of good repair, and mobility for use in evaluating land use scenarios and transportation projects that will be considered for the 2045 Regional Transportation Plan. Staff will continue to work with area stakeholders to establish performance targets to help monitor progress towards federal, state, and regional transportation goals.

Safety and Public Health

The Nashville Area MPO program has a reputation as a national leader in the integration of public health considerations into the transportation planning process. GNRC will continue its efforts to evaluate health impacts of proposed transportation policies, plans, and programs through traditional roadway safety/ crash data analyses, emerging Health Impact Assessment practices and further incorporate its Integrated Transport Health Impact Model (ITHIM) with its Activity Based Model to forecast health savings due to changes in travel behaviors.

Planning for Operations

GNRC will continue to work with TDOT and other stakeholders to ensure that improvements to traffic operations and incident management are a top strategy for achieving congestion management and roadway safety goals of the MPO. In FY 2019, GNRC launched a major study to evaluate improvements to regional Intelligent Transportation Systems (ITS) infrastructure to include potential upgrades to area traffic signal technology, and to prepare for emerging technologies in transportation and communications. GNRC will complete this effort in FY 2020.

Linking Planning and Environment

In recent years, federal and state agencies have sought to streamline the transportation project delivery process by linking the planning process with the environmental review required by the National Environmental Policy Act (NEPA). To assist in this effort, GNRC has placed an emphasis on integrating analyses of environmental, community, and economic goals into long-range planning and will be coordinating with TDOT, FHWA, and other partners to incorporate a formal Planning and Environmental Linkages (PEL) approach into the development of the 2045 Regional Transportation Plan.

Freight & Goods Movement

GNRC continues to build its capacity for regional freight planning through the work program. GNRC has budgeted funds in FY 2020 and FY 2021 to facilitate implementation of recommendations from the most recent phase of the Regional Freight and Goods Movement Study. Strategies will be developed through coordination with the regional Freight Advisory Committee and Transportation Coordinating Committee.

4.0 Work Program Highlights

4.1 Call for Projects and Adoption

Each February or March, GNRC announces a call-for-studies or planning activities to be considered for the upcoming year's UPWP. While the call is primarily targeted at those serving on the MPO Transportation Coordinating Committee and Transportation Policy Board, the public is encouraged to offer suggestions for topics or issues to be studied. Interested stakeholders and members of the general public are provided an opportunity submit ideas through the MPO's website at NashvilleMPO.org or via email at comments@gnrc.org during development of the work program. There is also an opportunity during the public review and comment period for the public to take a survey on the draft UPWP at <https://www.surveymonkey.com/r/FY20UPWP>.

The MPO's Public Participation Plan (PPP) requires that members of the public are given at least seven (7) days to review and comment on the draft work program prior to adoption. Following that review period, a public hearing is held prior to the adoption of the work program. The MPO notices the seven-day review period and the date, time, and location of the public hearing in regional newspapers and on the GNRC and MPO websites.

A copy of the draft UPWP will be posted on the GNRC's website at gnrc.org. Special assistance is provided for those who need it, by contacting MPO staff at (615) 862-7204 or Contact@NashvilleMPO.org.

4.2 Planning Priorities for Fiscal Years 2020 and 2021

As presented in Section 3.0, the work program is designed around regional planning issues of importance to Middle Tennesseans and scheduled according to regular cycles for the update to major plans and programs. The FY 2020-2021 program highlights include:

- **Adoption of two new Transportation Improvement Programs** – GNRC is currently drafting an update to the MPO's Transportation Improvement Program to align its programming horizon with that (FY 2023) of the new State Transportation Improvement Program (STIP) being developed by TDOT. The new TIP is scheduled for adoption in October of 2019 and will be updated again as part of the 2045 Regional Transportation Plan development with adoption scheduled for early 2021.
- **Completion of the South Corridor Study** – GNRC will complete its evaluation of major transportation investments along the I-65/ US 31/ SR-6 corridor connecting Nashville, Brentwood, Franklin, Thompsons Station, Spring Hill, and Columbia. The study is largely focused on evaluating rapid transit alternatives but will also identify ancillary roadway and active transportation improvements and provides guidance for aligning land use and development policies and regulations with desired transportation and mobility patterns. Recommendations will be incorporated into the Regional Transportation Plan.
- **Completion of the Smart Mobility Assessment & Regional ITS Architecture** – GNRC will complete work on a study to inventory existing Intelligent Transportation Systems (ITS) across the region and to evaluate the potential for emerging technologies to alter regional travel patterns and system performance. The federally-required ITS Architecture will be updated as part of the effort. Recommendations will be incorporated into the Regional Transportation Plan.
- **Adoption of the 2045 Regional Transportation Plan** – By far, the most visible initiative of the GNRC during FY 2020 and 2021 will be the major update to the Regional Transportation Plan. Community engagement for the RTP will be conducted on a grand scale with new and innovative approaches to ensure regional collaboration and state involvement. While data collection and technical studies related to the RTP have been underway since FY 2018, a public kickoff scheduled for Fall 2019 will reactivate regional conversations about transportation priorities that address concerns about mounting traffic congestion and roadway safety issues. The development of the plan also will focus

on refining the MPO's congestion management process and reevaluating targets set for federally-required performance measures related to safety, congestion, system preservation, and transit assets.

- **Coordination with other Regional Planning Documents** – The work proposed for the FY 2020-2021 provides an opportunity to align the Regional Transportation Plan with other regional planning initiatives and products developed by GNRC including the federally required documents like the Comprehensive Economic Development Strategy and Area Plan for Aging and Disability Services, as well as products of regional interest related to environmental quality and resource conservation, solid waste management, social equity, housing affordability, and workforce development.
- **Ongoing Technical Studies and Analysis** - GNRC has budgeted funds to conduct various planning studies to further refine recommendations for the Regional Transportation Plan including but not limited to modeling and forecasting, congestion management, asset management, freight and goods movement, downtown mobility and parking, transportation demand management strategies, transportation revenue/ funding options, managed lanes and dynamic pricing strategies, and regional corridor management strategies.

4.3 Primary Accomplishments During Fiscal Year 2019

Following is a list of the major accomplishments achieved through the MPO work program during FY 2019, some of which related to activities continuing into FY 2020.

- **A New Transportation Planning Agreement with TDOT and Transit Operators** – In January 2019, the Transportation Policy Board approved a new transportation planning agreement that defines the roles and responsibilities of the GNRC/Nashville Area MPO program, TDOT, and area transit operators in carrying out the federally-required metropolitan planning process.
- **A Major Update to the Public Participation Plan** – In June 2019, the Transportation Policy Board adopted the first major update to the MPO's Public Participation Plan since 2007 to account for the recent integration of the MPO program into GNRC. The updated PPP also incorporates new methods of community engagement and metrics to track performance.
- **Transition to a Two-Year Unified Planning Work Program** – In August 2019, the Transportation Policy Board adopted the FYs 2020-2021 Unified (Transportation) Planning Work Program which represents the first two-year UPWP for the MPO program – a practice that has become common across the state.
- **Preparation of the FYs 2020-2023 Transportation Improvement Program** – During FY 2019, GNRC staff coordinated with local governments, area transit operators, and TDOT to prepare the first major update to the Transportation Improvement Program since 2016. Formal adoption is scheduled for October 2019 and will be submitted to TDOT for incorporation, by reference, into the new FYs 2020-2023 State Transportation Improvement Program (STIP).
- **Kickoff of Major Studies** – FY 2019 saw the public launch of two major studies aimed at identifying improvements to regional transit and technology options. The South Corridor Study seeks to identify and evaluate rapid transit alternatives to improve connectivity between communities in Davidson, Williamson, and Maury counties; the Smart Mobility Assessment seeks to find strategies to accelerate the deployment of technologies to improve traffic operations and regional transportation system performance.
- **Tooling for the Next Update to the Regional Transportation Plan** - Throughout FY 2019, GNRC staff and consultants worked to upgrade planning models and forecasting tools in preparation for the development of the 2045 Regional Transportation Plan and related studies. Specifically, GNRC developed a new land use forecasting model, deployed new scenario planning tools, and upgraded its regional activity-based travel demand model.

- **Call for Projects for the MPO Transit and Technology Grant Fund** - GNRC administered a call-for-projects and awarded grants through its Transit and Technology Grant Program (TTP). Created in 2016, the program is funded by a portion of the MPO's direct suballocation of Surface Transportation Block Grant (STBG) revenue and seeks to accelerate the deployment of technologies that improve access to transit, traffic operations, or help elevate community engagement in the planning process.
- **Nashville Region's Vital Signs Report** – In December 2018, GNRC and the Nashville Area Chamber of Commerce released the annual indicators report to draw attention to the region's strengths and weaknesses related to quality of life and economic prosperity. The report places significant emphasis on mounting challenges related to traffic congestion and regional mobility.

4.4 Planning Partners

The activities identified in the Unified (Transportation) Planning Work Program are carried-out through a collaborative effort among GNRC staff and federal, state, and local agencies. In addition, GNRC contracts with area non-profit organizations and private consulting firms in cases where additional capacity, expertise, or independent assessments are required.

Lead Federal Agencies

The **Federal Highway Administration** (FHWA) administers all federal-aid highway monies available for highway planning and implementation pursuant to the provisions of Title 23, United States Code. Given that TDOT has implemented the Consolidated Planning Grant (CPG) Program, all FHWA and FTA planning funds are combined into a single fund that is administered by FHWA.

The FHWA Tennessee Division Office in Nashville is responsible for issuing regulations and guidelines relative to expenditure of Federal-aid highway monies in Tennessee; monitoring all highway planning, programming and implementation activities; and exercising fiscal control of all Federal-aid highway expenditures through an annual audit.

The **Federal Transit Administration** (FTA) administers all federal-aid monies available through grant allocation for public transportation planning, capital improvement, demonstration and operations pursuant to the provisions of Title 49, United States Code. The FTA Region IV Office in Atlanta is responsible for issuing federal transit regulations and guidelines for use by grant recipient agencies and public transportation agencies, monitoring public transportation planning and demonstration projects, and exercising fiscal controls.

GNRC also coordinates with the U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, the U.S. Department of Commerce, and the U.S. Department of Agriculture on matters pertaining to transportation.

Lead State Agency

The **Tennessee Department of Transportation** (TDOT) is the state agency responsible for managing, operating, and maintaining U.S. Interstates and the State route system. This includes oversight of the design and construction of transportation improvement projects for those roadways, as well as other federal-aid routes when requested to do so on behalf of local communities. Within the context of planning, TDOT is responsible for the preparation of a statewide transportation plan; administration of a data collection program relative to transportation modes and needs; and cooperation with local government members of MPOs in the development of metropolitan area transportation plans.

GNRC also coordinates with the Governor's Office, the Department of Safety and Homeland Security, the Department of Health, the Department of Economic and Community Development, and the Department of Environment and Conservation, Department of Tourist Development, the TN Commission on Aging and Disability, and the TN Housing Development Agency on matters pertaining to transportation.

Public Transit Operators

Public transit operators play a critical role in regional transit planning efforts by participating in the long-range planning efforts of the GNRC, but also by carrying out short-term capital planning and operational analysis activities. The **Regional Transportation Authority**, recently rebranded to WeGo Public Transit, is responsible for developing, managing, operating, and maintaining a regional transit system across ten Middle Tennessee counties including all seven counties in the Nashville Metropolitan Planning area. The RTA oversees the largest commuter vanpool program in the Southeast, facilitates thousands of carpools, coordinates Relax & Ride regional bus routes, and operates the area's first regional rail project.

The Nashville Metropolitan Transit Authority, recently rebranded to **WeGo Public Transit**, provides transit service throughout Davidson County. The **Franklin Transit Authority** provides local bus/trolley service to residents in the Franklin and Cool Springs area. The **City of Murfreesboro Transportation Department** provides local bus service, known as Rover, to residents in Murfreesboro.

Non-Profit Organizations

GNRC has an ongoing partnership with each of the following non-profit organizations that help implement activities identified in the work program to connect additional community groups and stakeholders to the planning process.

- **Conexión Américas** works in partnership with the GNRC to foster public involvement on public transportation improvements that prioritize modes of active transportation. Conexión Américas is uniquely qualified to orchestrate public engagement on transportation plans, programs, policies and projects as it has the staff and resources to connect with populations, especially local Latino communities, that would not be reached through the MPO's traditional outreach and communications methods.
- The **Nashville Area Chamber of Commerce** and GNRC co-produce an annual indicators report entitled, "Nashville Region's Vital Signs" to help draw attention to the area's strengths and weakness through ongoing tracking of various performance measures that relate to quality of life. The Nashville Area Chamber of Commerce also helps the GNRC coordinate with other chambers across the region to ensure that local businesses have a voice in the transportation planning process.
- The **Nashville Civic Design Center** works with the GNRC to integrate good urban design considerations into the transportation planning process. Together, the Nashville Civic Design Center and the University of Tennessee at Knoxville School of Architecture and Design partner to publish two booklets per year that illustrate best practices and concepts to provide guidance to the region.
- **Cumberland Region Tomorrow** is a non-profit organization formed in 2000 to inform and educate the region on matters related to quality growth, and to support local communities in their comprehensive planning efforts. Through its work, CRT brings people together to address the challenges and opportunities that come with growth and development in Middle Tennessee. Its mission is to foster communication, collaboration, and action as the region plans for long-term livability, economic vitality and sustainability.
- The **Transportation Management Association (TMA) Group** is a 501(c)(3) non-profit organization which works with local employers to promote transportation demand management strategies such as transit and ridesharing, telecommuting, flexible work schedules, among others. The TMA Group also operates local bus service under contract to Franklin Transit Authority and the regional vanpool program under contract to the Regional Transportation Authority.

4.5 Changes to the Adopted Work Program

Any changes to the Work Program that involve the addition of major studies not previously described in this document, the addition of newly identified federal funding, removal of a task, changes in the scope of work, or shifts in funding between tasks of more than 20 percent will require a formal amendment. Formal amendments must be adopted by the Transportation Policy Board according to the procedures outlined in the Public

Participation Plan which require a 10-day public review and comment period and a public hearing. All other changes may be performed administratively by GNRC and provided to TDOT, FHWA, and FTA, and published to the GNRC website.

5.0 Work Tasks and Outcomes

Task 1. Program Administration

Purpose

Administer a continuous, cooperative, and comprehensive metropolitan planning program to ensure that state and local partners maintain eligibility for the use of federal transportation funds to improve area roadways and transit systems.

Accomplishments during Fiscal Year 2019

- Administered the planning activities identified in the adopted FY 2019 Unified (Transportation) Planning Program.
- Tracked revenue and expenses and prepared quarterly progress reports for reimbursements.
- Carried out procurement process to select a roster of consultants for use in support of regional transportation planning activities.
- Participated in professional development organizations and attended peer exchanges, conferences, and webinars to further advance skillsets and qualifications of staff.
- Participated in the federal certification review process jointly conducted by FHWA and FTA and performed activities related to corrective actions. The certification review ensures that the planning requirements of 23 U.S.C. 134 and 49 U.S.C. 5303 are being satisfactorily implemented.
- Updated the federal-required Transportation Planning Agreement between GNRC, TDOT, and area transit operators to define roles and responsibilities associated with the MPO planning process.
- Developed the FY 2020-2021 UPWP.

Activities Identified for Fiscal Years 2020-2021

- Manage the implementation of work tasks and budgets identified within the FY 2020-2021 Unified (Transportation) Planning Program.
- Coordinate planning activities with TDOT, adjacent MPOs and RPOs, transit agencies, and other transportation stakeholders across the Middle Tennessee region.
- Maintain MPO planning agreements and update as needed.
- Continue the practice of training new members on MPO programs and services.
- Monitor best practices for transportation/ metropolitan area planning by attending workshops and by participating in associations such as the National Academies Transportation Research Board, American Planning Association, Association of MPOs, the American Public Transportation Association, Transportation for America, the American Association of State Highway and Transportation Officials, among others.
- Host or participate in various regional, statewide, and national conferences to advance best practices in transportation planning and coordination.
- Prepare necessary updates to the Unified (Transportation) Planning Work Program including preparation of the FYs 2021-2022 program.

TDOT Activities

- TDOT will work with the MPO to establish the administrative and technical procedures required to meet federal planning requirements; prepare and review contractual agreements as necessary; participate in MPO meetings; distribute special and annual reports and study documents; review and analyze individual transportation planning projects and studies; coordinate FTA programs across Tennessee;

assist MPOs with matters pertaining to statewide freight and public transportation systems; and undertake general administrative activities in support of the metropolitan planning program.

Products & Outcomes

- Invoices and progress reports to TDOT (quarterly)
- Printed/ published MPO-related reports and documents (ongoing)
- Travel and training (ongoing)
- Annual memberships in planning and transportation engineering organizations (ongoing)
- Software and devices for MPO activities (ongoing)
- Annual refresh of the FYs 2020-2021 UPWP (January - August 2020)
- FYs 2021-2022 UPWP (August 2021)

Anticipated Purchases

- Local travel and other direct costs for meetings across the MPO planning area (\$15,000)
- Travel and registration for conferences, peer exchanges, study missions; cost of production for MPO hosted conferences including facility rental, necessary food and beverage, speakers, brochure/programs (\$80,000)
- Printing and publications for MPO products developed as part of any UPWP Task (\$70,000)
- Consumable Supplies (\$10,000)
- Membership fees and organizational dues for industry and trade associations (\$24,000)
- Public noticing and advertisements for MPO plans, programs, events, and meetings (\$40,000)
- Software and devices to including subscriptions for ESRI ArcGIS, Caliper TransCAD, and other software necessary to perform the tasks outlined in this Unified Planning Work Program (\$40,000)
- Telecommunications (\$1,000)

Budget Summary for FY 2020

Agency	CPG PL (80/10/10)		CPG PL (80/20)		Local Match	State Match	Total
	FTA 5303	FHWA PL	FHWA SPR (MPO)				
GNRC (MPO Program)	\$ -	\$ 202,480	\$ -	\$ 50,620	\$ -	\$ -	\$ 253,100
TDOT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,512	\$ 2,512
Partnerships	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Consultants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Totals	\$ -	\$ 202,480	\$ -	\$ 50,620	\$ -	\$ 2,512	\$ 255,612

Budget Summary for FY 2021

Agency	CPG PL (80/10/10)		CPG PL (80/20)		Local Match	State Match	Total
	FTA 5303	FHWA PL	FHWA SPR (MPO)				
GNRC (MPO Program)	\$ -	\$ 202,480	\$ -	\$ 50,620	\$ -	\$ -	\$ 253,100
TDOT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,512	\$ 2,512
Partnerships	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Consultants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Totals	\$ -	\$ 202,480	\$ -	\$ 50,620	\$ -	\$ 2,512	\$ 255,612

*In addition, TDOT expends FHWA SPR funding to cover costs of the Departments participation in the MPO program. Those funds are accounted for in the TDOT Work Program (<https://www.tn.gov/tdot/long-range-planning-home/longrange-administration/longrange-spr.html>).

Task 2. Regional Planning

Purpose

Maintain a long-range plan for the region's transportation needs that is: 1) technically based on the latest available data on land use, demographics, and travel patterns; 2) philosophically based on regional goals and values, and 3) financially based on predictable, reliable funding sources; integrate transportation planning with land use, economic development, environmental, and public health considerations. Contribute to other local and state planning efforts across the area to ensure the incorporation of a regional perspective, and to help increase the effectiveness of regional governance and coordination.

Accomplishments during Fiscal Year 2019

- Continued implementation and maintenance of the 2040 Regional Transportation Plan (RTP).
- Participated in the MTA/RTA transit planning process related to operational analysis and the development of the “Let’s Move Nashville” transit program of projects put to voters for funding approval.
- Participated in Wilson County’s Transit Orientated Development planning processes along the Music City Star commuter rail line.
- Participated in Envision Nolensville Pike planning efforts to develop context sensitive public works projects to support community desires along the BRT route.
- Participated in the Berry Hill multimodal study along Franklin Pike.
- Continued work with Nashville Civic Design Center to incorporate urban design recommendations into the transportation planning process.
- Began work on the South Corridor Study in partnership with TDOT and area transit operators to evaluate major transit alternatives.
- Began work on the Regional Intelligent Transportation Systems/ Smart Mobility Assessment in partnership with TDOT, area chambers of commerce, and local entrepreneurial centers.
- Adopted targets for performance-based planning measures related to safety, congestion, system preservation, and transit assets.

Activities Identified for Fiscal Years 2020-2021

- Continue work to develop the 2045 Regional Transportation Plan (RTP) with updated analysis of existing conditions and trends, financial constraints, and project prioritization and selection criteria.
- Continue to monitor and implement federal planning requirements for the integration of transportation performance measures for safety, infrastructure, congestion, and other measures identified by federal regulations and guidance. Performance measures and targets will be developed in coordination with TDOT as part of the development of the 2045 RTP.
- Continue to maintain the federal functional classification system for the MPO planning area.
- Participate in local and statewide planning efforts to ensure consistency with regional plans.
- Coordinate with the RTA, area transit agencies, and the Mid-Cumberland Human Resource Agency in the maintenance and administration of the Coordinated Human Services Transportation Plan.
- Continue efforts to integrate public health considerations into the transportation planning process.
- Continue to evaluate strategies to manage congestion in the region through the development of alternatives to driving alone, and through alignment with local land use decisions.
- Continue participation in Roadway Safety Audit Reviews to identify safety improvements to area roadways.
- Continue to explore opportunities to integrate innovative design activities into the planning and project development process through practices such as creative-placemaking.

- Complete work on the Regional ITS/ Smart Mobility Assessment to recommend intelligent transportation systems (ITS) improvements across the region and to prepare for emerging technologies such as connected vehicles and integrated communications systems. The effort will include an update to the ITS Architecture.
- Complete work on the South Corridor Study to make recommendations for transit investment opportunities between Nashville and Williamson and Maury counties, and to align economic and community development practices with those investments.
- Complete asset management analysis to update the analysis of existing road and bridge conditions and the projections of maintenance needs over the life of the plan. The work will develop a reasonable estimate of funding needs and develop more informed system maintenance funding levels for the RTP.
- Update suitability analysis for bicycle and pedestrian travel in order to update non-motorized model and assess latent demand to support the prioritization of bicycle and pedestrian projects for future funding consideration.
- Conduct various small scale planning studies to further refine recommendations for the Regional Transportation Plan including but not limited to modeling and forecasting, congestion management, freight and goods movement, downtown mobility and parking, transportation demand management strategies, transportation revenue/ funding options, managed lanes and dynamic pricing strategies, and regional corridor management strategies.
- **Conduct a regional traffic shed/impact fee analysis to implement recommendations from the Regional Transportation Plan by identifying transportation revenue options and growth management help local communities manage future growth and development.**

TDOT Activities

- TDOT will conduct the I-40/81 Multimodal Corridor Study to identify short-and long-term solutions for improving problem spots. The results will provide a prioritized listing of potential multimodal projects that can be considered by TDOT or by the MPO.
- TDOT will work with the MPO to integrate recommendations of the 2045 RTP and the statewide long-range transportation plan; review MPO planning models; attend meetings for planning studies; and provide support to the Tennessee Model Users Group.

Partner Activities

- GNRC will partner with the Nashville Civic Design Center to create visualization tools and develop policy guidance to communicate and encourage best practices for the integration of urban design and transportation improvements.

Consultant Activities

- Various consultants for general planning and regional modeling support during the development of the 2045 Regional Transportation Plan - \$1,562,500 (less funds spent in FY 2019)
- WSP USA Contract for South Corridor Study - \$875,000 (less funds spent in FY 2019)
- Stantec Contract for Regional ITS/ Smart Mobility Study - \$187,500 (less funds spent in FY 2019)

Products & Outcomes

- Update Safety Performance Measure Target (November 2019)
- South Corridor Study Report/ Recommendations (December 2019)
- Smart Mobility Assessment Report/Recommendations (December 2019)
- Updated ITS Architecture (October 2019)
- Asset Management Analysis (December 2019)
- Active Transportation LOS and Latent Demand Analysis (December 2019)

- Technical reports from planning and modeling activities related to regional transportation plan including land use/ economic growth and development, roadway safety, system preservation, congestion management, freight and goods movement, and financial planning (ongoing)
- Technical reports from transit planning activities (ongoing)
- Update Safety Performance Measure Target (November 2020)
- Update System Performance Measure Target (November 2020)
- 2045 Regional Transportation Plan (February 2021)

Budget Summary for FY 2020

	CPG PL (80/10/10)		CPG PL (80/20)					
Agency	FTA 5303	PL	FTA 5307	SPR (MPO)	Local Match	State Match	Total	
GNRC (MPO Program)	\$ -	\$ 680,920	\$ -	\$ -	\$ 170,230	\$ -	\$ 851,150	
TDOT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,809	\$ 6,809	
Partnerships	\$ -	\$ -	\$ -	\$ 50,000	\$ 12,500	\$ -	\$ 62,500	
Consultants	\$ 325,000	\$ 225,000	\$ 400,000	\$ 300,000	\$ 196,875	\$ 65,625	\$ 1,512,500	
Totals	\$ 325,000	\$ 905,920	\$ 400,000	\$ 350,000	\$ 379,605	\$ 72,434	\$ 2,432,959	

Budget Summary for FY 2021

	CPG PL (80/10/10)		CPG PL (80/20)					
Agency	FTA 5303	PL	FTA 5307	SPR (MPO)	Local Match	State Match	Total	
GNRC (MPO Program)	\$ -	\$ 680,920	\$ -	\$ -	\$ 170,230	\$ -	\$ 851,150	
TDOT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,809	\$ 6,809	
Partnerships	\$ -	\$ -	\$ -	\$ 50,000	\$ 12,500	\$ -	\$ 62,500	
Consultants	\$ 325,000	\$ 225,000	\$ -	\$ 300,000	\$ 196,875	\$ 65,625	\$ 1,112,500	
Totals	\$ 325,000	\$ 905,920	\$ -	\$ 350,000	\$ 379,605	\$ 72,434	\$ 2,032,959	

*In addition, TDOT expends FHWA SPR funding to cover costs of the Departments participation in the MPO program. Those funds are accounted for in the TDOT Work Program (<https://www.tn.gov/tdot/long-range-planning-home/longrange-administration/longrange-spr.html>).

Task 3. Transportation Programming

Purpose

Maintain a regional program that prioritizes and schedules transportation projects consistent with adopted short- and long-range plans of the state and region; administer competitive grant programs as scheduled.

Accomplishments during Fiscal Year 2019

- Administered and maintained the FYs 2017-2020 Transportation Improvement Program by processing formal amendments and administrative adjustments.
- Published the list of federally-obligated projects for FY 2018.
- Maintained the MPO's web-based TIP software and database at TIP.NashvilleMPO.org.
- Held call-for-applications related to the MPO's Transit and Technology Program. Awarded funds to projects across the MPO planning area to improve access and safety to active transportation facilities.
- Conducted a call-for-projects and prepared the draft FYs 2020-2023 Transportation Improvement Program for public review and comment.

Activities Identified for Fiscal Years 2020-2021

- Maintain the TIP to ensure its compliance with federal regulations and to program additional federal funds as they become available.
- Monitor the progress of project fund obligations and MPO member compliance with TIP programming policies.
- Assist TDOT in the call-for-projects for the state Transportation Alternatives Program.
- Publish a list of federally obligated projects within 90 days of the FY 2019 closeout.
- Adopt the new FY 2020-2023 TIP in coordination with TDOT as the state prepares the new State Transportation Improvement Program (STIP).
- Prepare and adopt a FY 2021-2025 TIP to serve as the first horizon of the 2045 Regional Transportation Plan. The process will include a call for projects, project prioritization, financial planning, and public review and comment.

TDOT Activities

- TDOT will report the obligation status of TIP projects on a regular basis; provide information and assistance to MPO membership regarding project schedules and funding expenditures; and issue various call-for-projects for state-managed grant funds.

Products & Outcomes

- Maintenance of the active Transportation Improvement Program (Ongoing)
- Adopted FYs 2020-2023 Transportation Improvement Program (October 2019)
- Annual Listing of Federally Obligated Projects for FY 2019 (December 2019)
- Annual Listing of Federally Obligated Projects for FY 2020 (December 2020)
- Adopted FYs 2021-2025 Transportation Improvement Program (February 2021)

Budget Summary for FY 2020

	CPG PL (80/10/10)	CPG PL (80/20)				
Agency	FTA 5303	PL	SPR (MPO)	Local Match	State Match	Total
GNRC (MPO Program)	\$ -	\$ 145,000	\$ -	\$ 36,250	\$ -	\$ 181,250
TDOT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Partnerships	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Consultants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Totals	\$ -	\$ 145,000	\$ -	\$ 36,250	\$ -	\$ 181,250

Budget Summary for FY 2021

	CPG PL (80/10/10)	CPG PL (80/20)				
Agency	FTA 5303	PL	SPR (MPO)	Local Match	State Match	Total
GNRC (MPO Program)	\$ -	\$ 145,000	\$ -	\$ 36,250	\$ -	\$ 181,250
TDOT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Partnerships	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Consultants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Totals	\$ -	\$ 145,000	\$ -	\$ 36,250	\$ -	\$ 181,250

*In addition, TDOT expends FHWA SPR funding to cover costs of the Departments participation in the MPO program. Those funds are accounted for in the TDOT Work Program (<https://www.tn.gov/tdot/long-range-planning-home/longrange-administration/longrange-spr.html>).

Task 4. Data Analysis & Modeling

Purpose

Maintain and analyze data to support transportation planning and facility/system design; develop planning models to forecast future population and employment growth, land development, traffic volumes, transit ridership, and to identify potential impacts of growth and/or policy proposals on public health and the environment.

Accomplishments during Fiscal Year 2019

- Upgraded the MPO's regional activity-based travel demand model and maintained custom software to facilitate data visualization and analysis. The software supports user accounts, custom mapping and reporting, and is intended to increase accessibility to robust datasets and travel forecasts often only used by travel demand modelers.
- Developed new land use model and forecasting tool using UrbanSim platform.
- Deployed a new scenario planning tool using the Urban Footprint platform.
- Deployed a new data visualization tool using the MySidewalk platform.
- Prepared population and employment forecasts for use in the 2045 Regional Transportation Plan.
- Completed data collection for use in the 2045 Regional Transportation Plan.
- Deployed a new capital improvements software to facilitate tracking and prioritization of transportation projects.

Activities Identified for Fiscal Years 2020-2021

- Update the MPO's Integrated Transportation Health Impact Model (ITHIM) to predict health outcomes of changes in regional travel behaviors.
- Perform final calibration and validation of the regional land use and travel demand models in preparation for corridor studies and the 2045 RTP.
- Continue to compile and analyze data to monitor regional congestion in accordance with federal planning requirements for a congestion management process.
- Continue to compile and analyze data related to highway, bridge, and transit system conditions using information from Highway Performance Monitoring System, National Bridge Inventory, and the Federal Transit Database.
- Continue to collect and analyze roadway safety (traffic incident) data made available from the Tennessee Department of Safety and Homeland Security.
- Continue to compile and analyze information related to bicycling and pedestrian conditions across the region including measures related to latent demand and level of service.
- Maintain base year and forecast data for regional planning models to be used in the development of the 2045 Regional Transportation Plan including land use data, transportation system data, socioeconomic data, environmental quality data, sociocultural data. Datasets are accessible from a variety of sources including state agencies and local governments.
- Partner with the Nashville Area Chamber of Commerce to produce the Nashville Region's Vital Signs data indicators report.

TDOT Activities

- TDOT will continue to collect traffic count data for planning and project design and provide support for maintaining traffic accident data for use in safety analysis.

Partner Activities

- GNRC will partner with the Nashville Area Chamber of Commerce to produce and publish the annual “Nashville Region’s Vital Signs” indicators report.

Products & Outcomes

- Nashville Region’s Vital Signs Indicators Report (October 2019)
- Validated Travel Demand Model (December 2019)
- Updated ITHIM Model (December 2019)
- Nashville Region’s Vital Signs Indicators Report (October 2020)
- Technical reports documenting research and data analysis in support of regional planning (ongoing).

Budget Summary for FY 2020

	CPG PL (80/10/10)		CPG PL (80/20)				
Agency	FTA 5303	PL	SPR (MPO)	Local Match	State Match	Total	
GNRC (MPO Program)	\$ -	\$ 394,400	\$ -	\$ 98,600	\$ -	\$ 493,000	
TDOT	\$ -	\$ -	\$ -	\$ -	\$ 2,095	\$ 2,095	
Partnerships	\$ -	\$ 70,000	\$ -	\$ 17,500	\$ -	\$ 87,500	
Consultants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Totals	\$ -	\$ 464,400	\$ -	\$ 116,100	\$ 2,095	\$ 582,595	

Budget Summary for FY 2021

	CPG PL (80/10/10)		CPG PL (80/20)				
Agency	FTA 5303	PL	SPR (MPO)	Local Match	State Match	Total	
GNRC (MPO Program)	\$ -	\$ 394,400	\$ -	\$ 98,600	\$ -	\$ 493,000	
TDOT	\$ -	\$ -	\$ -	\$ -	\$ 2,095	\$ 2,095	
Partnerships	\$ -	\$ 70,000	\$ -	\$ 17,500	\$ -	\$ 87,500	
Consultants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Totals	\$ -	\$ 464,400	\$ -	\$ 116,100	\$ 2,095	\$ 582,595	

*In addition, TDOT expends FHWA SPR funding to cover costs of the Department’s participation in the MPO program. Those funds are accounted for in the TDOT Work Program (<https://www.tn.gov/tdot/long-range-planning-home/longrange-administration/longrange-spr.html>).

Task 5. Communications & Outreach

Purpose

Keep MPO members and partners informed on regional trends and issues and the transportation planning process; engage stakeholders and the public in the development of regional policies; provide opportunities for meaningful input on proposed plans and programs; comply with the guidelines of the adopted Public Participation Plan; continue to seek new methods of outreach.

Accomplishments during Fiscal Year 2019

- Completed a major update to the MPO's Public Participation Plan (PPP).
- Participated in various community and stakeholder meetings, presentations, and events as part of the continuing outreach efforts of the regional transportation planning process.
- Maintained the MPO's website at NashvilleMPO.org and began the integration of MPO content into the new GNRC.org website.
- Participated in "creative labs" as part of Envision Nolensville Pike to increase community engagement along the corridor to inform the planned transit and roadway improvements.

Activities Identified for Fiscal Years 2020-2021

- Maintain compliance with the MPO's Public Participation Plan (PPP).
- Evaluate the annual performance of the communications and outreach strategies and methods described in the PPP.
- Maintain MPO member and stakeholder contact lists and databases.
- Maintain a list of traditionally under-served or under-represented populations (e.g., minorities, low-income, seniors, young adults, among others).
- Maintain contacts with local media for the dissemination of planning related news and events.
- Continue the integration of social media platforms to reach highly mobile residents.
- Continue implementation of communications plans to ensure that the public and stakeholders are made aware of any branding or programmatic changes as the MPO program is integrated into the GNRC.
- Continue to publicly notice and advertise MPO plans, programs, meetings.
- Conduct MPO meetings including the annual membership luncheon that will pull together the Transportation Policy Board and Transportation Coordinating Committee.
- Incorporate highlights of MPO accomplishments and planning activities into GNRC annual report.
- Continue to find ways to expand public engagement by incorporating existing GNRC programs, the arts and creative placemaking into transportation planning efforts.

Partner Activities

- GNRC will partner with Conexión Americas to assist with community engagement for the 2045 Regional Transportation Plan and associated studies.

Products & Outcomes

- Maintenance and periodic review of the Public Participation Plan (ongoing)
- Public meetings and workshops related to MPO planning and products (ongoing)

Budget Summary for FY 2020

	CPG PL (80/10/10)	CPG PL (80/20)				
Agency	FTA 5303	PL	SPR (MPO)	Local Match	State Match	Total
GNRC (MPO Program)	\$ -	\$ 249,400	\$ -	\$ 62,350	\$ -	\$ 311,750
TDOT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Partnerships	\$ -	\$ -	\$ 70,000	\$ 17,500	\$ -	\$ 87,500
Consultants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Totals	\$ -	\$ 249,400	\$ 70,000	\$ 79,850	\$ -	\$ 399,250

Budget Summary for FY 2021

	CPG PL (80/10/10)	CPG PL (80/20)				
Agency	FTA 5303	PL	SPR (MPO)	Local Match	State Match	Total
GNRC (MPO Program)	\$ -	\$ 249,400	\$ -	\$ 62,350	\$ -	\$ 311,750
TDOT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Partnerships	\$ -	\$ -	\$ 70,000	\$ 17,500	\$ -	\$ 87,500
Consultants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Totals	\$ -	\$ 249,400	\$ 70,000	\$ 79,850	\$ -	\$ 399,250

*In addition, TDOT expends FHWA SPR funding to cover costs of the Department's participation in the MPO program. Those funds are accounted for in the TDOT Work Program (<https://www.tn.gov/tdot/long-range-planning-home/longrange-administration/longrange-spr.html>).

Other Transportation Planning Activities

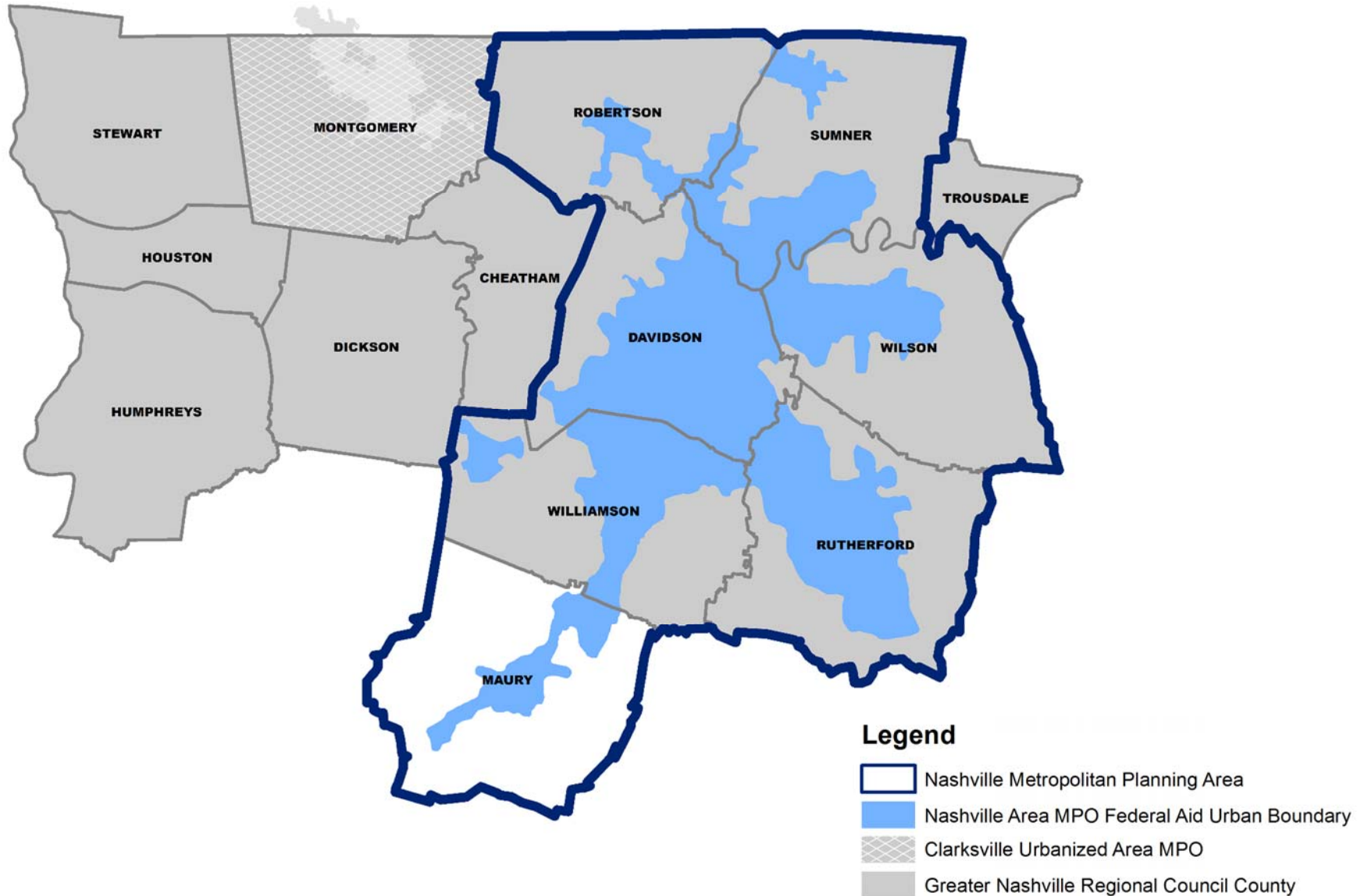
The following activities have been identified by transportation planning partners and could be carried out across the region with local, state, or federal revenue not formally programmed into the Unified (Transportation) Planning Work Program at the time of adoption.

- **Sumner Countywide Bicycle-Pedestrian Facility Master Plan** - Prepare a plan to establish policies and priorities for the design and construction of Bike-Ped facilities in Sumner County including in all municipalities. This includes all types of bike and pedestrian facilities including greenways and trails, sidewalks and crosswalks and bridges. (Requested by City of Gallatin)
- **Northeast (NET) Corridor Phase 3-5 Feasibility Study** - The SR 386/US 31E NET Corridor Study will evaluate the feasibility of developing the NET Corridor. This project is identified in separate phases (Section 3, Section 4, and Section 5) in the MPO's Regional Transportation Plan. (Requested by Sumner County)
- **Interstate 40/81 Corridor Study** - The study will investigate a range of multimodal solutions to address future travel demands, with emphases on managing congestion, improving safety, maximizing the potential for freight diversion and preserving/enhancing the corridors' economic benefits. The effort is expected to be completed in June 2020 and is budgeted for \$2.5 million with \$2 million in FHWA SPR funds and \$500,000 state funds. (Submitted by TDOT)
- **Statewide Active Transportation Plan** - Through the SATP, TDOT will assess bicycle/pedestrian/ accessibility transportation infrastructure, practices, policies, programs, resources, constraints and opportunities within Tennessee. After the assessment, the SATP will establish a long-term vision for Tennessee with goals, strategies and corresponding actions to inform both long-term (20-year) and short-term (5-year) decision-making for walking/bicycling/accessibility in our transportation systems. The primary purpose of the SATP is to provide consistency across TDOT division and regions for considering and addressing pedestrian and bicycle modes on TDOT's state highway system (SHS). Understanding that the SHS is a small percentage of the overall public road miles in the state, the SATP will be developed to be used by other entities – including MPOs – as well. The secondary purpose of the SATP is to assess the interface and linkages between entities (e.g., TDOT, local and regional planning, public works and transit agencies) as they relate to providing walking and bicycling infrastructure. The SATP will provide a clear understanding of the resources, responsibilities and opportunities for bicycle and pedestrian transportation connectivity statewide. The SATP is underway and will be complete in November 2020. (Submitted by TDOT)
- **WeGo Star Rail Improvements Planning Study** - RTA is conducting a planning level analysis of the WeGo Star commuter rail corridor that will define various strategic levels of service improvements together with the associated capital and operating costs. This effort included the development of a railroad operating model to simulate various capital improvement and scheduling alternatives for impact on overall operations. This analysis will help determine future short and long-term options, particularly as the Nashville Metropolitan Planning Organization (MPO) develops its long-range plan update. The budget for the study is \$281,734, with \$225,387 in FTA Section 5307 funds and the match split between TDOT and WeGo. (Submitted by WeGO/RTA)
- **Regional Park and Ride Investment Strategy** - RTA is developing a Regional Commuter Park-n-Ride strategic investment plan that will provide guidance and direction on the approach to establishing park-n-ride lots for commuters in Middle Tennessee. The plan will identify and prioritize target areas and potential sites for bus service, carpools, and vanpools that reduce the number of cars on major commuter corridors in the Nashville area. The total budget is \$227,400, with \$181,920 in FTA Section 5307 funds and the match split between TDOT and WeGo. (Submitted by WeGO/RTA)
- **Transit Shelter Planning and Implementation Study** - To support the development of a new transit facility and future park-n-ride facility, a study will be conducted for current and future bus routes that will prioritize target areas and potential sites for bus services and shelters to meet the growing needs of the community and maximize usage of sheltered stops. The study is expected to be completed by

summer 2022. The budget for the study is \$280,805, with \$224,644 in FTA Section 5307 funds and the match split between TDOT and Murfreesboro Transit. (Submitted by Murfreesboro Public Transit)

- **Cool Springs Transportation Study** - This comprehensive study reviews the Cool Springs area's existing traffic conditions, along with approved, ongoing development and its effects on the transportation infrastructure in this area over the next 10 years. The study will then develop recommendations for future development and redevelopment within this area of Franklin as it relates to traffic impacts and analysis. It is anticipated this study will result in updated needs/requirements for Traffic Impact Studies (TIS) for new development. The Cool Springs Transportation Study is currently underway and has a budget of \$290,100. (Submitted by City of Franklin)

Appendix A. Map of Planning Area



Appendix B. Funding Sources

Following are the funding sources that are used for planning activities in this work program:

FHWA METROPOLITAN PLANNING (PL) FUNDS

Metropolitan Planning Funds (PL-Section 112): The Federal Highway Administration (FHWA) annually allocates PL funding to the all the MPO's in the nation for MPO's planning related activities. These federal planning funds require local matching funds of 20%, which is typically provided by local governments. The PL funds are used for paying MPO staff salaries, fringe benefits, overhead and various plans and studies.

FTA METROPOLITAN PLANNING (FTA 5303) FUNDS

Section 5303 Metropolitan Planning Funds are designated for multimodal transportation planning activities that support the metropolitan transportation planning process. These funds require a 20% match which is typically divided between state and local government, with each contributing 10%.

CONSOLIDATED PLANNING GRANT (CPG) FUNDS:

The Tennessee Department of Transportation (TDOT) participates in the Consolidated Planning Grant (CPG) Program whereby FHWA and FTA metropolitan planning funds are combined into a single grant fund administered by FHWA. The funding from this program are distributed to the MPOs through TDOT in accordance with 23 CFR 420.109.

FHWA STATE PLANNING AND RESEARCH (SPR) FUNDS

This is another source of federal funds that are allocated under the FHWA's State Planning & Research Program; and these funds are administered by the Tennessee Departments of Transportation (TDOT) and are shared with MPO programs in cases where an MPO planning area extends beyond the limits of the federally-defined urbanized areas. This fund requires a 20% match that may be provided either by the state DOT or by local jurisdictions.

FEDERAL PROGRAM GRANTS

Regulations allow MPOs and their member jurisdictions to use federal transportation grants targeted for programs to pay for planning activities. Typically, those "program" funds come from the FHWA Surface Transportation Block Grant (STBG) Program or the FTA Urban Transit Program (Section 5307) and are intended to cover the costs of corridor or project-level planning activities. In addition, the U.S. Department of Transportation and other federal agencies periodically make available other grant programs that can be used for the purposes of carrying out regional planning activities. Those programs are typically administered on a competitive basis and require a formal application and proposal. In the event that program funds are used for regional planning activities those funds are identified in the MPO's TIP as well.

LOCAL AND STATE MATCHING FUNDS

In most cases, federal grant funds require at least a 20 percent non-federal match. The MPO receives funding from its member jurisdictions to cover that match based on a per capita rate. Additional contributions may be provided by MPO members, TDOT, or regional partners in order to cover special efforts or those that affect only a subset of the membership.

Appendix C. Budget Tables

Table 1. FY 2020-2021 Budget Summary

	FHWA CPG	FTA***	FHWA SPR	STATE MATCH	MEMBER DUES	OTHER LOCAL****	TOTAL
NEW PROGRAMS	\$ 3,684,400	\$ 350,000	\$ 690,000	\$ 43,750	\$ 1,042,350	\$ 95,000	\$ 5,905,500
MPO OPERATING	\$ 3,344,400	\$ -	\$ -	\$ -	\$ 836,100	\$ -	\$ 4,180,500
MPO Staff Salaries & Benefits	\$ 2,152,000	\$ -	\$ -	\$ -	\$ 538,000	\$ -	\$ 2,690,000
MPO Other Direct Costs	\$ 224,000	\$ -	\$ -	\$ -	\$ 56,000	\$ -	\$ 280,000
MPO Indirect Costs*	\$ 968,400	\$ -	\$ -	\$ -	\$ 242,100	\$ -	\$ 1,210,500
REGIONAL PARTNERS	\$ 140,000	\$ -	\$ 240,000	\$ -	\$ -	\$ 95,000	\$ 475,000
Conexion Americas	\$ -	\$ -	\$ 140,000	\$ -	\$ -	\$ 35,000	\$ 175,000
Nashville Area Chamber of Commerce Vital Signs	\$ 140,000	\$ -	\$ -	\$ -	\$ -	\$ 35,000	\$ 175,000
Nashville Civic Design Center	\$ -	\$ -	\$ 100,000	\$ -	\$ -	\$ 25,000	\$ 125,000
CONSULTANT ACTIVITIES	\$ 200,000	\$ 350,000	\$ 450,000	\$ 43,750	\$ 206,250	\$ -	\$ 1,250,000
General Planning & Regional Modeling	\$ 200,000	\$ 350,000	\$ 450,000	\$ 43,750	\$ 206,250	\$ -	\$ 1,250,000
CONTINUING PROGRAMS**	\$ 250,000	\$ 700,000	\$ 150,000	\$ 87,500	\$ 100,000	\$ 87,500	\$ 1,375,000
				\$ -			
CONSULTANT ACTIVITIES	\$ 250,000	\$ 700,000	\$ 150,000	\$ 87,500	\$ 100,000	\$ 87,500	\$ 1,375,000
General Planning & Regional Modeling	\$ 250,000	\$ -	\$ -	\$ -	\$ 62,500	\$ -	\$ 312,500
Smart Cities/ ITS Assessment	\$ -	\$ -	\$ 150,000	\$ -	\$ 37,500	\$ -	\$ 187,500
South Corridor Study	\$ -	\$ 700,000	\$ -	\$ 87,500	\$ -	\$ 87,500	\$ 875,000
TOTAL BUDGET	\$ 3,934,400	\$ 1,050,000	\$ 840,000	\$ 131,250	\$ 1,142,350	\$ 182,500	\$ 7,280,500

*Based on anticipated indirect cost rate approval of 45%

**May be spent down before the start of FY 2020

***Includes FTA 5303 funds flexed to FHWA for the Consolidated Planning Grant Program and FTA 5307 funds programmed in the TIP for regional planning activities

****Other Local includes cash and in-kind contributions from MPO members or regional partners

Table 2. Operating Costs by Task, FYs 2020-2021

Task	Salaries & Benefits	Other Direct Costs	Total Direct Costs	Indirect Costs	Total Costs
1.0 Program Administration	\$ 156,000	\$ 280,000	\$ 436,000	\$ 70,200	\$ 506,200
2.0 Regional Planning	\$ 1,174,000	\$ -	\$ 1,174,000	\$ 528,300	\$ 1,702,300
3.0 Transportation Programming	\$ 250,000	\$ -	\$ 250,000	\$ 112,500	\$ 362,500
4.0 Data Analysis & Modeling	\$ 680,000	\$ -	\$ 680,000	\$ 306,000	\$ 986,000
5.0 Communications & Outreach	\$ 430,000	\$ -	\$ 430,000	\$ 193,500	\$ 623,500
TOTAL	\$ 2,690,000	\$ 280,000	\$ 2,970,000	\$ 1,210,500	\$ 4,180,500

Table 3. Other Direct Costs Detail, FYs 2020-2021

Other Direct Costs	Amount
Local Travel	\$ 15,000
Workshops and Conferences	\$ 80,000
Printing and Publications	\$ 70,000
Consumable Supplies	\$ 10,000
Membership Fees and Organizational	\$ 24,000
Public Noticing/ Marketing	\$ 40,000
Software and Devices	\$ 40,000
Telecommunications	\$ 1,000
TOTAL	\$ 280,000

Table 4. FYs 2020-2021 Revenue Sources and Balance

Federal Grant Source	FY 19 Carryover*	FY 20 Allocation	FY 21 Allocation	Total Available	Programmed 2020-21	Balance
FHWA PL Funds w/ Match	\$ 1,500,000	\$ 1,737,933	\$ 1,737,933	\$ 4,975,866	\$ 4,918,000	\$ 57,866
FHWA SPR Funds w/ Match	\$ 350,000	\$ 374,855	\$ 374,855	\$ 1,099,710	\$ 1,050,000	\$ 49,710
FTA Funds w/ Match	\$ 400,000	\$ 588,840	\$ 588,840	\$ 1,577,680	\$ 1,312,500	\$ 265,180
Total	\$ 2,250,000	\$ 2,701,628	\$ 2,701,628	\$ 7,653,256	\$ 7,280,500	\$ 372,756

*Estimated based on anticipated spending for the remainder of FY 2019.

Appendix D. Key Terms and Acronyms

Additional acronyms and terms are defined online courtesy of the Federal Highway Administration at online at <https://www.fhwa.dot.gov/Planning/glossary/>

ADA - Americans with Disabilities Act of 1990: Federal law that requires public facilities (including transportation services) to be accessible to persons with disabilities including those with mental disabilities, temporary disabilities, and the conditions related to substance abuse.

CFR – Code of Federal Regulations: The codification of the general and permanent rules published in the Federal Register by the departments and agencies of the Federal Government. It is divided into 50 titles that represent broad areas subject to Federal regulation. Federal transportation planning requirements pertaining to MPOs are generally provided in Titles 23 and 49.

CMP - Congestion Management Process (previously known as Congestion Management System): A systematic process to address congestion management through metropolitan planning. The CMP is required under 23 CFR 500.109 and shall include methods to monitor and evaluate the performance of the multi-modal transportation system, identify causes of congestion, identify and evaluate alternative actions, provide information supporting the implementation of actions, and evaluate the efficiency and effectiveness of implementation actions.

Complete Streets – Streets that offer transportation choices that are safe and convenient for all ages and ability levels. These choices may include transit, walking, bicycling and automobile travel.

DOT - Department of Transportation: Agency responsible for transportation at the local, state, or federal level. For title 23 U.S.C. federal-aid highway actions, this would mean the Federal Highway Administration and for federal-aid transit actions under title 49 U.S.C, this would mean the Federal Transit Administration.

EA – Environmental Assessment: The process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of development proposals prior to major decisions being taken and commitments made. The purpose of the assessment is to ensure that decision-makers consider environmental impacts before deciding whether to proceed with new projects.

EJ - Environmental Justice: Derived from Title VI of the Civil Rights Act of 1964, and established by Executive Order 12898, EJ requires federally funded plans and programs to assess their impact, either positive or negative, on traditionally underserved (e.g., low-income, minority, etc.) communities or segments of the population. The goal of EJ is to ensure public involvement of low income and minority groups in decision making to prevent disproportionately high and adverse impacts on low income and minority groups, and to ensure that these groups receive equal benefits from transportation improvements.

EPA – U.S. Environmental Protection Agency: is an agency of the federal government of the United States charged with protecting human health and with safeguarding the natural environment: air, water, and land.

FHWA - Federal Highway Administration: Division of the U.S. Department of Transportation responsible for administrating federal highway transportation programs.

FRA – Federal Railroad Administration: The modal administration of the United States Department of Transportation responsible for the safety and effectiveness of the nation’s railroad infrastructure.

FTA - Federal Transit Administration: The modal administration of the United States Department of Transportation responsible for federal transit planning and programs.

FTA - Franklin Transit Authority: The local transit agency for Franklin, Tennessee, currently operated on behalf of the city by The TMA Group.

FY - Fiscal Year: A federal fiscal or budget year. The FY runs from October 1 through September 30 for the MPO and the federal government. State and local governments operate on a fiscal year beginning July 1 and ending June 30.

GIS – Geographic Information System: a system for capturing, storing, analyzing and managing data which is spatially referenced to the earth. GIS is a tool that allows users to create interactive queries (user created searches), analyze the spatial information, edit data, maps, and present the results of all these operations.

GNRC – Greater Nashville Regional Council: a regional organization created by State law to serve as the development district for 13 counties in northern Middle Tennessee. GNRC serves as the Area Agency on Aging and Disability, the Middle Tennessee Tourism Council, and provides community planning and economic development assistance to its local government members. In 2017, the GNRC was designated to serve as the MPO sponsor agency, and as such provides staffing and administrative services to the MPO Transportation Policy Board.

HUD – United States Department of Housing and Urban Development: Federal agency charged with helping to create strong, sustainable, inclusive communities and quality, affordable homes.

ITS - Intelligent Transportation System: Use of computer and communications technology to facilitate the flow of information between travelers and system operators to improve mobility and transportation productivity, enhance safety, maximize the use of existing transportation facilities, conserve energy resources and reduce adverse environmental effects; includes concepts such as “freeway management systems,” “automated fare collection” and “transit information kiosks.”

LEP – Limited English Proficiency: A term used in the United States that refers to a person who is not fluent in the English language, often because it is not their native language.

LRTP – Long-Range Transportation Plan: A document resulting from regional or statewide collaboration and consensus on a region or state's transportation system, and serving as the defining vision for the region's or state's transportation systems and services. In metropolitan areas, the plan indicates all of the transportation improvements scheduled for funding over the next 20 years. It is fiscally constrained, i.e., a given program or project can reasonably expect to receive funding within the time allotted for its implementation.

MPO - Metropolitan Planning Organization: The forum for cooperative transportation decision-making; required for urbanized areas with populations over 50,000.

MTA – Metropolitan Transit Authority (recently rebranded as WeGo Public Transit): The public transit agency serving Nashville/Davidson County.

NEPA – National Environmental Policy Act: Passed in 1970, NEPA requires federal agencies to integrate environmental values into their decision-making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions.

NHS - National Highway System: Consists of roadways important to the nation’s economy, defense, and mobility. The NHS includes the Interstate System, principal arterial highways in rural and urban areas, the Strategic Highway Networks and connectors for national defense purposes, and intermodal connectors that tie together the surface, air, water, and rail transportation systems.

PPP – Public Participation Plan: a federally-required document that describes the MPO’s process for involving the public and interested stakeholders in the development and adoption of required plans and programs. The PPP describes the formal procedures used to adopt or amend the Long-Range Transportation Plan, the Transportation Improvement Program, and Unified Planning Work Program.

RTA – Regional Transportation Authority: Nine-county regional agency that plans and develops regional transit in the Nashville area.

STIP - State Transportation Improvement Program: A priority list of transportation projects developed by the Tennessee Department of Transportation that is to be carried out within the four (4) year period following its

adoption; must include documentation of federal, State, and local funding sources for each project. Transportation projects in the state's 11 metropolitan areas are determined through Metropolitan Planning Organization process.

TCA – Tennessee Code Annotated: The codification of Tennessee state laws.

TCC - Transportation Coordinating Committee: (Formerly Technical Coordinating Committee) A standing committee of area planners, engineers, and other transportation related agencies which provide advice on plans or actions to the Transportation Policy Board.

TDEC – Tennessee Department of Environment and Conservation: State agency responsible for protecting the quality of the natural environment, conserving natural and historic resources, and providing quality outdoor recreational activities through the state park system.

TDOS – Tennessee Department of Safety and Homeland Security: State agency responsible for driver's licenses, vehicle titles, highway patrol, handgun permits, public safety, and homeland security

TDOT – Tennessee Department of Transportation: State agency responsible for the planning and implementation of Tennessee's multimodal transportation system including roads and bridges, aviation, public transit, waterways, and railroads.

Title VI of the Civil Rights Act - Enacted as part of the landmark Civil Rights Act of 1964. It prohibits discrimination on the basis of race, color, and national origin in programs and activities receiving federal financial assistance.

TIP - Transportation Improvement Program: A priority list of transportation projects developed by a metropolitan planning organization that is to be carried out within the four (4) year period following its adoption; must include documentation of federal, state, and local funding sources for each project and be consistent with adopted MPO long range transportation plans and local government comprehensive plans.

TMA - Transportation Management Area: An area designation by the U.S. Department of Transportation given to all urbanized areas with a population of 200,000 or more (or other area when requested by the Governor and MPO); these areas must comply with special transportation planning requirements regarding congestion management systems, project selection and certification; requirements identified in 23 CFR - 450.300-338.

Transportation Policy Board (formerly the Executive Board): A standing committee created for the purpose of serving as spokespersons for the citizens of the metropolitan area and is the designated MPO to prioritize and direct federal transportation funds to local projects.

The TMA Group: A local non-profit organization headquartered in Williamson County responsible for carrying out certain transit services on behalf of the Regional Transportation Authority and the Franklin Transit Authority, and for the administration of the regional Clean Air Partnership of Middle Tennessee, under contract to Williamson County and the Nashville Area MPO.

TOD - Transit Oriented Development: a mixed-use development that is anchored by a transit station. The transit mode may include bus or rail, and the development may include uses such as housing, office and retail.

Transportation Disadvantaged: People who are unable to transport themselves or to purchase transportation due to disability, income status or age.

UPWP - Unified Planning Work Program: Developed by Metropolitan Planning Organization (MPOs); identifies all transportation and planning activities anticipated within the next one to two years, including a schedule for the completion of the identified tasks and activities.

U.S.C – United States Code: A consolidation and codification by subject matter of the general and permanent laws of the United States. Titles 23 and 49 of the USC pertain to highways and transportation

Appendix E. MPO Products Summary

Products/Tasks	Timeframe	Completion Date
Regional Transportation Plan (RTP)		
Policy Framework	Oct 2019	Oct 2019
Base Year Conditions	Oct 2019-Jan 2020	Jan 2020
Model Development and Forecasts	Oct 2019-Feb 2020	Feb 2020
Regional & Corridor Studies	Oct 2019-Feb 2020	Feb 2020
Technical Studies & Analysis	Oct 2019-Feb 2020	Feb 2020
Call for Projects	Jan-Mar 2020	Mar 2020
Project Evaluation and Prioritization	Mar-Jun 2020	Jun 2020
Implement & Monitor	Feb 2021	Feb 2021
Transportation Improvement Program (TIP)		
Administrative Modifications	Oct 2019-Sept 2020	Ongoing
Amendment Cycles A-D	Oct 2019-Sept 2020	Quarterly
Amendment Cycles A-D	Oct 2020-Sept 2021	Quarterly
Publish FY 2019 List of Obligations	Oct 2019-Dec 2019	Dec 2019
Publish FY 2020 List of Obligations	Oct 2019-Dec 2020	Dec 2020
FYs 2021-2025 TIP Development Cycle*	Jan 2020-Feb 2021	Feb 2021
* FY 2021-2025 TIP will be developed in conjunction with the call-for-projects, project evaluation and prioritization steps outlined for the Regional Transportation Plan (RTP).		
Unified Planning Work Program (UPWP)		
Call-for-Studies and Planning Activities through TCC and TPB	Feb-March each year	
UPWP Drafting and Budgeting	Apr-May each year	
State and Federal Review	May-July each year	
Public Review and Comment	August each year	
Adoption	Feb-March 2021	
Effective Date	Oct 1 each year	

Public Participation Plan (PPP)		
Annual Meeting for Public Hearing on MPO Planning Docs	Oct 2019-Jan 2020	Jan 2020
Annual Meeting for Public Hearing on MPO Planning Docs	Oct 2020-Jan 2021	Jan 2021
RTP Outreach	Oct 2019-Feb 2021	Ongoing
TIP Outreach	Oct 2019-Sept 2021	Ongoing
UPWP Outreach	Oct 2019-Aug 2021	Ongoing
Monitoring of PPP Effectiveness	Oct 2019-Sep 2021	Ongoing
Congestion Management Process (CMP)		
Develop Regional Objectives for Congestion Management	Oct 2019	Oct 2019
Define CMP Network	Oct 2019-Nov 2019	Nov 2019
Develop Multimodal Performance Measures	Oct 2019-Nov 2019	Nov 2019
Collect Data/Monitor System Performance	Oct 2019-Jun 2020	Jun 2020
Analyze Congestion Problems and Needs	Oct 2019-Jun 2020	Jun 2020
Identify and Assess Strategies	Oct 2019-Jun 2020	Jun 2020
Program and Implement Strategies	Oct 2019-Jun 2020	Jun 2020
Evaluate Strategy Effectiveness	Oct 2019-Jan 2021	Jan 2021

